In the claims:

1-13. (Cancelled)

14. (Currently Amended) A battery comprising (1) at least one positive electrode, (2) at least one negative electrode, (3) an electrolyte, and (4) a homogeneous microporous membrane comprising (a) a hot-melt adhesive, (b) an engineering plastics, (c) optionally a tackifier and (d) ~~optionally~~ a filler having an average particle size of less than about 50μm.

15. (Currently Amended) The battery of claim 14, wherein the microporous membrane comprises a tackifier, in an amount ~~up to~~ of about 2% to about 50% by weight, selected from the group consisting of a hydrocarbon resin and poly(vinylidene fluoride-hexafluoropropene).

16. (Currently Amended) The battery of claim 14, wherein the ~~microporous membrane comprises~~ a filler ~~having an average particle size of less than about 50μm,~~ is present in an amount ~~up to~~ of about 2% to about 50% of the membrane by weight, and wherein said filler is selected from the group consisting of fumed silica, alumina, titanium dioxide, molecular sieve, calcium carbonate, calcium silicate, glass, ceramic material and polytetrafluoroethylene.

17. (Amended) The battery of claim 14, wherein at least one positive electrode is a lithium-ion positive electrode.

18. (Amended) The battery of claim 14, wherein at least one negative electrode is a lithium-ion negative electrode,

19. (Original) The battery of claim 14, wherein the electrolyte is a lithium-ion electrolyte.

20. (Original) The battery of claim 19, wherein lithium-ion electrolyte is a liquid lithium-ion electrolyte or a polymer lithium-ion electrolyte.

21. (Currently Amended) The battery of claim 14, wherein said microporous membrane is bound onto ~~a surface of said electrodes~~ at least one positive electrode and at least one negative electrode by heat activation at a temperature of about 35°C to about 125°C and under a pressure of about 0.5 to about 100 psi for a period of time of about 0.5 to about 250 minutes.

22. (Currently Amended) The battery of claim 14, wherein the hot-melt adhesive is poly(ethylene-vinyl acetate) having a weight content of vinyl acetate from about 25% to about 90%, and from about ~~10%~~ 75% to about ~~75%~~ 10% weight of ethylene.

23. (Currently Amended) The battery of claim 14, wherein the hot-melt adhesive is poly(ethylene-alkyl acrylate) having a weight content of alkyl acrylate from about 10% to about 30% and a weight content of ethylene from about 90% to about 70% and wherein the alkyl group preferably comprises from one to about five carbon atoms.

24. (Entered) The battery of claim 14, wherein the engineering plastics is selected from the group consisting of polyimides, polyamide imides, polyether imides, polysulfone, polyether sulfones, polyaryl sulfones, polyether ketones, polyether ether ketones, polyphenylene sulfides, ~~polyarylates~~ polyacrylates, polyamides, polybutylene terephthalate, polystyrene, polystyrene-maleic anhydride, polychlorofluoroethane, polycarbonate, and poly(styrene-methyl methacrylate) or a combination thereof.

25. (Currently Amended) A battery comprising (1) at least one positive electrode, (2) at least one negative electrode, (3) an electrolyte, and (4) a homogenous microporous membrane comprising (a) a hot-melt adhesive, (b) an engineering plastics, (c) a hydrocarbon resin tackifier in an amount of about 2% to about 50% of the membrane by weight and (d) optionally a filler.

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